PACCAR Inc
Law Department

October 10, 2000

OOV-246.102

Director
National Highway Traffic
Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

RE: Safety Recall #800-G
20-EDL Model Ball Sockets
Expiration Date: None

Dear Sir:

Enclosed are (3) copies of the notification letters that were mailed by Peterbilt Motors Company to its dealers/service managers on October 2, 2000, and to its customers on October 10, 2000.

Very truly yours,

Kenneth R. Brownstein
by KAH

Kenneth R. Brownstein
Senior Counsel

KRB:kah
FS800-G-Dlr.doc

Enclosure

P.O. Box 1518 Bellevue, Washington 98009 Telephone 425-468-7355
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004 Facsimile 425-468-8228

[redacted]

October 2, 2000

TO: DEALER PRINCIPALS
SERVICE MANAGERS
WARRANTY MANAGERS

SUBJECT: **SAFETY RECALL #800-G**
20-EDL MODEL BALL SOCKETS
EXPIRATION DATE: NONE

Peterbilt Motors Company has decided that a defect which relates to motor vehicle safety exists in certain Peterbilt vehicles which were manufactured between July 5, 1999 and November 30, 1999. A total of 1,723 trucks are affected and are identified by their VIN numbers on the attached list. Also attached is a copy of our letter to the owners of the affected trucks, which will be mailed to them in approximately one week.

The TRW type 20-EDL ball socket was used on most Meritor steer axles as tie-rod ends and in the draglink on some model 330's and all model 385's. Therefore, this recall will affect:

Meritor 10,000 lbs., 12,000 lbs. and 14,600 lbs. steer axle tie-rod ends;
Meritor 12,000 lbs. steer axle tie-rod ends used on pushers and tags;
All model 385 draglinks;
Model 330's with a 20,000 lbs. steer axle will have an affected draglink.

A limited number of ball-socket bearings have a below specification case depth and/or hardness which can, in some applications, lead to premature wear out of the socket. This premature wear can result in separation of the ball from the socket resulting in loss of steering control. The TRW type 20-EDL ball socket from the affected lot numbers identified in the TRW service bulletins (#LNK-112, #LNK-113) will be replaced with a TRW type 20-DL ball socket.

INSPECTION PROCEDURES:

The vehicle may have more than one affected component, therefore:

1. Determine if the vehicle is a model 385. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

2. Determine if the vehicle is a model 330 with a 20,000 lbs. steer axle. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

3. Determine if the vehicle has a pusher or tag axle (factory installed). If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

4. Determine if the vehicle has a Meritor 10,000 lbs., 12,000 lbs. or 14,600 lbs. steer axle. If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

The axles involved are Meritor FG941, FF943, FF961 and FF966.

PARTS:

Part Number	Description	Dlr Net/Each	Qty/Truck	Ext Dlr Net	Source Code
L20KT0003	Draglink	$59.70	1	$59.70	P
L20KP0006	Tie Rod End Service Kit	$30.00	1	$30.00	P

These parts will be available in the Paccar Parts Warehouses effective October 13, 2000.

LABOR:

Inspection only	999-003	0.3 hrs
Replace draglink	101-2	0.5 hrs
Replace tie rod ends on pusher, tag or steer axle		
includes adjust toe-in - one side	021-23	0.8 hrs
for both sides, add	021-23A	0.5

Please advise your customers that this repair must be performed ONLY at an authorized Peterbilt dealership. Under no circumstances are you to charge the customer for any portion of this repair.

It is a violation of Federal law for a dealer to sell or lease new vehicles or new items of replacement equipment covered by this recall until the defect or noncompliance is corrected.

If you have any questions regarding this Safety Recall, please contact Division Customer Service at 940/591-4171.

Sincerely,

PETERBILT MOTORS COMPANY

Craig W. Kendall

Craig W. Kendall
National Customer Service Manager

October 2, 2000

SUBJECT: **SAFETY RECALL #800-G**
20-EDL MODEL BALL SOCKETS
EXPIRATION DATE: NONE

Dear Sir/Madam:

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicles Safety Act.

Peterbilt Motors Company has decided that a defect which relates to motor vehicle safety exists in certain Peterbilt vehicles which were manufactured between July 5, 1999 and November 30, 1999. Your vehicle has been identified as being manufactured during this timeframe with the possible defect. These vehicles may contain a type 20-EDL ball socket in a portion of the front axle steering system (tie-rod assembly or draglink), or in the tie-rod assembly of a factory-installed steerable pusher/tag axle (if so equipped). This ball socket may wear prematurely and separate, resulting in a loss of steering control and possibly to a vehicle accident without warning.

Peterbilt has initiated a recall campaign to inspect for, and if necessary correct this condition by replacing the defective ball socket(s). Please contact the nearest Peterbilt dealership immediately to have your truck inspected and , if necessary, repaired. This procedure should take no more than 2 hours unless your vehicle has a factory installed steerable pusher/tag axle, which may increase the total time required to 3 ½ hours. This work will be performed at no charge to you.

If you require further information about this recall, or experience any difficulty in making arrangements for the repair, please contact: Peterbilt Motors Company, 1700 Woodbrook Street, Denton, Texas 76205-7864, attention: Customer Service Department 940/591-4171.

If you conclude that Peterbilt Motors Company has not enabled you to remedy this defect in reasonable time and without charge, you may submit a complaint to: Administrator for Enforcement, National Highway Traffic Safety Administration, 400 Seventh Street S.W., Washington DC 20590, or call the toll free safety hotline at 1-888-327-4236.

If you no longer own this truck, we would appreciate your advising us of the new owner, if the name is known to you. The enclosed postage-paid envelope may be used for this purpose.

We regret any inconvenience this may cause, however we are convinced that it is essential for the safe operation of your vehicle.

Sincerely,

PETERBILT MOTORS COMPANY

Craig Kendall

Craig W. Kendall
National Customer Service Manager

Peterbilt
A DIVISION OF PACCAR

Dealer Warranty Claim
Full Truck

Claim Information - Truck Claim (Screen 1)

Claim Type: C	New/Cert/Appeal	Sequince Number
Spec. Warranty Type	Campaign Number 800-G	Policy Number
Dealer Initials	Dealer Com. Code	Pre-Auth. Number
Customer Name	Customer City/State	

Chassis Information

Selling Dealer:	No. Trucks:	Model:
Plant/ Chassis:	Delivery Date:	NIS: ☐
X/M Mileage:	Service Type:	

Repair Information

Repair Ord/Inv. No:	Repair Date:	Vendor Code:
Fail Comp. Brand:	Fail Comp. Model:	Fail Type: 451
Fail Comp. Serial:	Accident (Y/N):	Pri Failed Part No:
Fail Comp. Location 015 004 024	Resp. Code:	NSI Number:

Dealer Communications - Truck Claim (Screen 2, Use form back if needed)

Complaint: SAFETY RECALL #800-G COMPLETED PER INSTRUCTIONS	Seq. No.
Cause	
Correction	

Parts/Labor Information

Requested Prorated Pct:	Part Ship Date:	Loc.
Total Amount Claimed:	Doc. Ship Date:	
Sublet Type (E/N):	Sublet Number:	
Sublet Parts $:	Sublet Labor $:	

Labor

	Labor Code	Labor Hrs.		Labor Code	Labor Hrs.		Labor Code	Labor Hrs.	
USE THE	999-003	0.3		021-23A	0.5				
APPROPRIATE	101-2	0.5							
CODE(S)	021-23	0.8							

Dealer Warranty Claims - Truck Claim Parts List (Screen 3)

Part Number	Part Description	Dealer Net	Qty	Seq. No. Source	Seq. No. Return
	USE APPROPRIATE PART(S)				
L20KT0003	Draglink	59.70	1	P	
L20KT0006	Tie-Rod End Service Kit	30.00	1	P	

Part Line Edit (on screen buttons)

Part Number	Part Description						Dealer Net	Qty	Source	Rt. Pt.
Add part line	Edit Part Line		Delete Part Line		Import Pick List					

TRW Automotive
Steering & Suspension Systems

Service Bulletin #LNK-112

EDL Socket Replacement (Tie Rods)

Released September, 2000

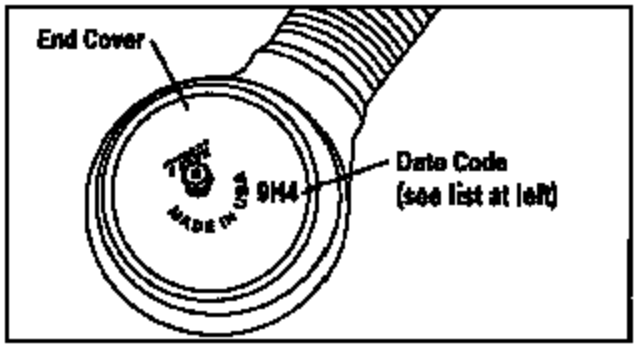
This TRW Commercial Steering Systems service bulletin has been written to help you repair commercial vehicles more efficiently. This bulletin should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.

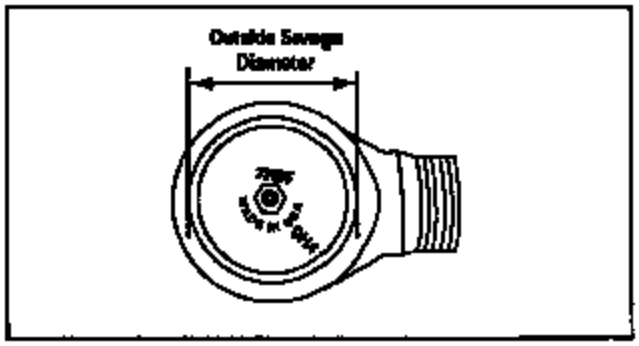
IF ..... The chassis number of the truck is on the list identified by the OE manufacturer. Any chassis number not on the list is not part of the campaign.

AND ..... The date code on either socket end is any of the following: 9G1, 9G2, 9G3, 9G4, 9H1, 9H2, 9H3, 9H4, 9H5, 9J1, 9J2, 9J3 OR 9J4. If the date code begins with any number other than "9", it is not part of the campaign. If the letter is "A-F" or "K-M", it is not part of the campaign.

AND ..... The sockets are "20 size" sockets. To identify the size: Measure the outside swage diameter. A 20 size socket will measure approx. 1 7/8". Any socket measuring 2 1/8" is a "24 size" socket, and is not part of the campaign.

THEN .... Both socket ends need to be replaced using this kit.





NOTE: Only 20 size sockets are subject to this campaign. Make sure you are servicing the correct size socket.

NOTE: Any socket with "DL" stamped into the end cover is a different design, and IS NOT part of this campaign.

Please continue to page 2 if ALL of the above conditions are met.

NOTE: Any socket with "DL" stamped into the end cover is a different design, and IS NOT part of this campaign.

Remove the Tie Rod Assembly

⚠ WARNING **To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.**

1. Remove the cotter pins and the nuts on both sides of the axle that fasten each tie rod end to the tie rod arms.

2. Disconnect the cross tube assembly from the tie rod arms using a ball joint separator (pickle fork).

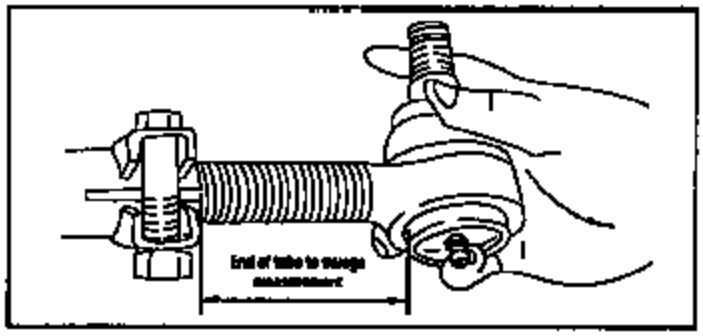
⚠ WARNING **Do not heat the arm to remove the tie rod assembly. Doing so will soften and damage the parts.**

⚠ WARNING **Always support the tie rod assembly so that it does not fall and become damaged or cause personal injury when separated from the steering knuckles.**

Remove and Replace the Tie Rod Ends

1. Note the position of the bolt and nut in the clamp, and the position of the clamp relative to the ground.

2. On one end, measure from the end of the tube to the nearest outside swage diameter as shown below. Record the measurement.



3. Measure the length of the tie rod from the outside of the swage diameter on one socket end to the outside of the swage diameter on the other socket end, as shown below. Record the measurement.

4. Loosen the clamp bolts on the cross tube.

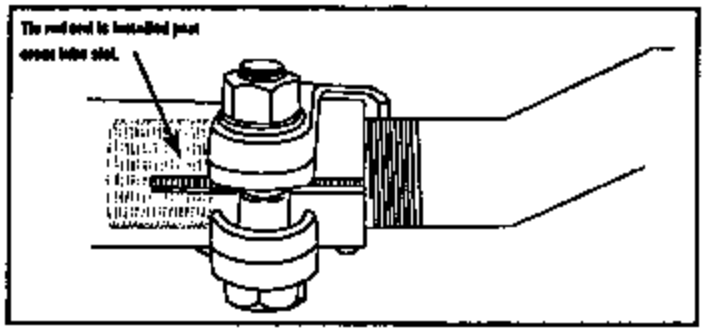
⚠ WARNING **If the clamp is tack-welded, do not remove the tack weld. If the tack weld is removed, clamping force will not be enough to keep the socket threads stationery. Loss of steering control will result. If welds are broken, the cross tube must be replaced.**

5. Remove one threaded tie rod end from the cross tube.

6. Install the new socket end. Thread the new socket end into the tube until the measurement from the end of the tube to the nearest outside swage diameter is the same as you measured in step 2.

7. Repeat steps 5 & 6 for the other socket end.

8. Make sure both ends are threaded into the tube deeper than the cross tube slot as shown below.



9. Measure the length of the tie rod again, and make sure it is the same as you measured in step 3. Sight down the tie rod and make sure socket ends are aligned.

10. If the clamp is not tack-welded, seat the tabs on the clamps against the end of the cross tube. Position the bolts as noted earlier. Tighten the clamps and torque to manufacturer's specifications.

Install the Tie Rod Assembly onto the Axle

1. Clean and dry the tie rod end taper and the tie rod arm taper hole. Connect the tie rod ends into the tie rod arms.

2. Install both tie rod end nuts to secure the tie rod end and cross tube assembly linkage to the tie rod arm. Torque the nuts to the vehicle manufacturer's specifications.

3. Install the cotter pins. If necessary, tighten the castle nut until the holes are aligned. Do not loosen the nut to install the cotter pin.

4. Sight down the tie rod again, to make sure the sockets are aligned with one-another. Also make sure the clamps are positioned relative to the ground as earlier noted.

Check Vehicle Toe-In

1. Check the toe-in measurements. Adjust as appropriate according to the manufacturer's guidelines.

TRW Automotive
Steering & Suspension Systems

Service Bulletin #LNK-113

EDL Socket Replacement (Drag Links)

Released September, 2000

This TRW Commercial Steering Division service bulletin has been written to help you repair commercial vehicles more efficiently. This bulletin should not replace your manuals; you should use them together. These materials are intended for use by properly trained, professional mechanics, NOT "Do-it-yourselfers". You should not try to diagnose or repair steering problems unless you have been trained, and have the right equipment, tools and know-how to perform the work correctly and safely.

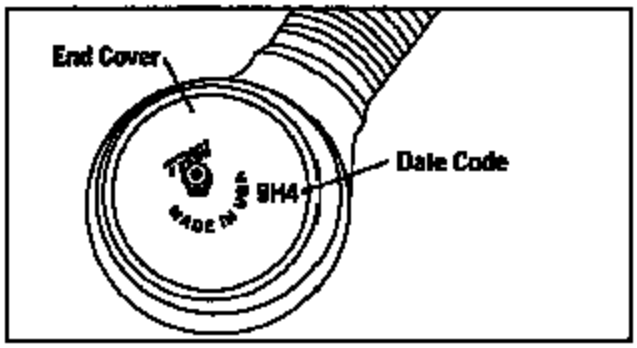
This campaign is limited to certain vehicles.

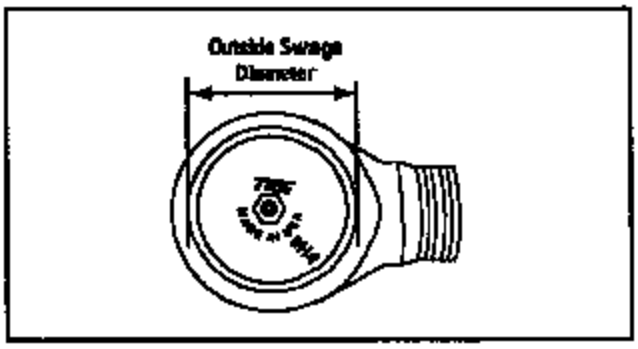
IF ..... The chassis number of the truck is on the list identified by the OE manufacturer,

AND ..... The date code on either socket end is any of the following: 9G1, 9G2, 9G3, 9G4, 9H1, 9H2, 9H3, 9H4, 9H5, 9J1, 9J2, 9J3 OR 9J4.

AND ..... The sockets are "20 size" sockets. To identify the size: measure the outside swage diameter. A 20 size socket will measure approx. 1 7/8". (24 size sockets measure 2 1/8", and are not part of this campaign.)

THEN ..... Both socket ends need to be replaced.





Identify the type of drag link, and proceed to the correct section:

If you have a two-end adjustable drag link, both socket ends need to be replaced. Section: **Two-End Adjustable (page 2).**

If you have a drag link with one adjustable and one fixed end, you should replace the complete drag link assembly. Section: **One-End Adjustable (page 3).**

If you have a fixed drag link (both ends are fixed), you should replace the complete drag link assembly. Section: **Fixed Drag Links (page 3).**

NOTE: Only 20 size sockets are subject to this campaign. Make sure you are servicing the correct size socket.

NOTE: Any socket with "DL" stamped into the end cover is a different design, and IS NOT part of this campaign.

Two-End Adjustable Drag Link Socket Replacement

Remove the Drag Link Assembly

1. Note the position of any bends in the drag link so it can be repositioned the same on reinstallation.

2. Remove the drag link connection to the **pitman arm** using a ball joint separator (pickle fork).

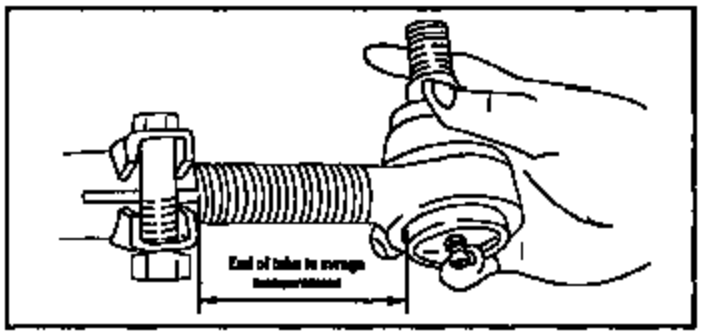
3. Remove the drag link connection to the **steering arm** using a ball joint separator (pickle fork).

> **⚠ CAUTION** **Do not steer to end of travel while the drag link is disconnected from the vehicle. Doing so may damage the steering gear poppets.**

Remove and Replace the Socket Ends

1. Note the position of the bolt and nut in the clamp, and the position of the clamp relative to the sockets.

2. On one end, measure from the end of the tube to the nearest outside swage diameter as shown below. Record the measurement.



3. Loosen one of the clamp bolts.

> **⚠ WARNING** **If the clamp is tack-welded, do not remove the tack weld. If the tack weld is removed, clamping force will not be enough to keep the socket threads stationery. Loss of steering control will result. If welds are broken, the cross tube must be replaced.**

4. Remove one threaded socket end from the drag link. Use a pipe wrench if necessary, being careful not to deform the tube.

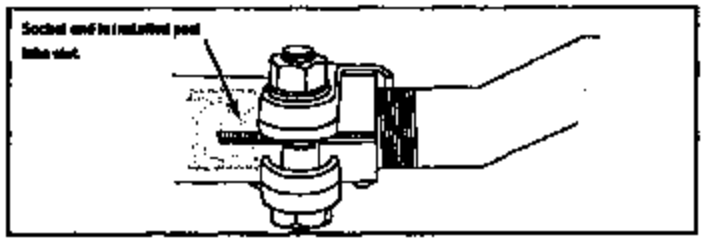
> **⚠ WARNING** **Do not heat the components to remove. Doing so will soften and damage the parts.**

5. Install the new socket end. Thread the new socket end into the tube until the measurement from the end of the tube to the nearest outside swage diameter is the same as you measured in step 2.

6. Repeat steps 3- 5 for the other socket end.

7. Make sure both ends are threaded into the tube deeper than the slot in the tube.

> **⚠ WARNING** **Do not adjust the drag link to a position where you can see the end of the socket thread through the slot in the tube. If the socket thread end is visible, corrosion may occur in the tube weakening the components.**



8. If the clamps are not tack-welded, seat the tabs on the clamps against the end of the tube. Position the bolts as noted earlier. Tighten the clamps and torque to manufacturer's specifications.

Install the Drag Link Assembly

1. Clean the tapered holes in the steering arm and pitman arm with a clean cloth.

2. Reconnect the drag link to the steering arm. Torque the nut to the manufacturer's specifications. Install the cotter pin.

3. Reposition the road wheels to straight ahead and install the drag link to the pitman arm. Rotate the steering gear input shaft slightly if necessary until the ball stud falls into place. Torque the nut to the manufacturer's specifications. Install the cotter pin.

Center the Socket Ends

1. Loosen the clamp on the PITMAN ARM END of the drag link.

2. Grasp the long side of the drag link with both hands. Rotate the drag link away from you as far as it will go, then toward you as far as it will go. Center the drag link between these two points.

3. Hold the long side in place. Grasp the short end of the drag link (socket only) and rotate it as far toward you and away from you as it will go. Center the short end between these two points.

4. With both ends centered, position the clamp on the PITMAN ARM END as noted earlier. Tighten the clamp and torque to vehicle manufacturer's specifications.

Check and Lubricate

1. Check to make sure the road wheels are straight ahead, and the steering gear is on center (timing marks are aligned).

2. Lubricate sockets through a grease zerk until you can see clean grease purging out of the seal.

One-End Adjustable Drag Link Assembly Replacement

Remove the Drag Link Assembly

1. Remove the drag link connection to the **pitman arm** using a ball joint separator (pickle fork).

2. Remove the drag link connection to the **steering arm** using a ball joint separator (pickle fork).

> **⚠ CAUTION** **Do not steer to end of travel while the drag link is disconnected from the vehicle. Doing so may damage the steering gear poppets.**

Install the Drag Link Assembly

1. Clean the tapered holes in the steering arm and pitman arm with a clean cloth.

2. Connect the new drag link to the steering arm. Torque the nut to the manufacturer's specifications. Install the cotter pin.

3. Reposition the road wheels to straight ahead and connect the new drag link to the pitman arm. Rotate the steering gear input shaft slightly if necessary until the ball stud falls into place. Torque the nut to the manufacturer's specifications. Install the cotter pin.

Center the Socket Ends

1. Loosen the clamp on the PITMAN ARM END of the drag link.

2. Grasp the long side of the drag link with both hands. Rotate the drag link away from you as far as it will go, then toward you as far as it will go. Center the drag link between these two points.

3. Hold the long side in place. Grasp the short end of the drag link (socket only) and rotate it as far toward you and away from you as it will go. Center the short end between these two points.

4. With both ends centered, position the clamp on the PITMAN ARM END as noted earlier. Tighten the clamp and torque to vehicle manufacturer's specifications.

Check and Lubricate

1. Check to make sure the road wheels are straight ahead, and the steering gear is on center (timing marks are aligned).

2. Lubricate sockets through a grease zerk until you can see clean grease purging out of the seal.

Fixed Drag Link Assembly Replacement

Remove the Drag Link Assembly

1. Remove the drag link connection to the **pitman arm** using a ball joint separator (pickle fork).

2. Remove the drag link connection to the **steering arm** using a ball joint separator (pickle fork).

> **⚠ CAUTION** **Do not steer to end of travel while the drag link is disconnected from the vehicle. Doing so may damage the steering gear poppets.**

Install the Drag Link Assembly

1. Clean the tapered holes in the steering arm and pitman arm with a clean cloth.

2. Connect the new drag link to the steering arm. Torque the nut to the manufacturer's specifications. Install the cotter pin.

3. Reposition the road wheels to straight ahead and connect the new drag link to the pitman arm. Rotate the steering gear input shaft slightly if necessary until the ball stud falls into place. Torque the nut to the manufacturer's specifications. Install the cotter pin.

Check and Lubricate

1. Check to make sure the road wheels are straight ahead, and the steering gear is on center (timing marks are aligned).

2. Lubricate sockets through a grease zerk until you can see clean grease purging out of the seal.

TRW Commercial Steering Systems
902 Lyons Rd.
Portland, MI 48875
Phone: (866) 280-3287 (toll free)
Fax (517) 647-0343

PACCAR

Law Department

October 10, 2000

OOV-246.102

Director
National Highway Traffic
Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

RE: Federal Recall Campaign 00KW3
Chassis Built with Arvin Meritor & Eaton Axles With
TRW Tie Rod Ball Sockets
All Models Built Between July 7, 1999 and December 3, 1999
Expiration Date: None

Dear Sir:

Enclosed are (3) copies of the notification letters that were mailed by Kenworth Truck Company to its dealers/service managers on October 6, 2000 and to its customers on October 10, 2000.

Very truly yours,

Kenneth R Brownstein by KAH

Kenneth R. Brownstein
Senior Counsel

KRB:kah
00KW3-2ltr.doc

Enclosure

P.O. Box 1518 Bellevue, Washington 98009 Telephone 425-468-7365
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004 Facsimile 425-468-8228

KENWORTH®

DEPT:	CUSTOMER SERVICE
CATEGORY:	Product Recall
TITLE:	Campaign 00KW3 TRW Tie Rod Ball Sockets
NUMBER:	C-E-094 PG: 1 OF 1
DATE:	10/06/00
VALID UNTIL:	Superseded

A Division of PACCAR

FEDERAL RECALL CAMPAIGN 00KW3
CHASSIS BUILT WITH ARVINMERITOR & EATON AXLES WITH
TRW TIE ROD BALL SOCKETS
ALL MODELS BUILT BETWEEN JULY 7, 1999 AND DECEMBER 3, 1999

Kenworth Truck Company has determined that a defect may exist in truck models built between July 7, 1999 and December 3, 1999, with ArvinMeritor and Eaton front axles built with TRW Type 20-EDL model (tie rod) ball socket assemblies. A total of 4,826 U.S. and 341 Canadian vehicles are involved in the campaign. The chassis list and a copy of the customer letter are attached. The DWC and SIR online systems indicate chassis involved in this recall with the designator "00KW3" in the "Campaign" field.

SITUATION

Kenworth Truck Company was notified by TRW that chassis built with ArvinMeritor and Eaton front axles with TRW Type 20-EDL model (tie rod) ball socket assemblies contain a heat-treated steel bearing with below specification case hardness and/or depth. In some applications, this condition could lead to premature wear-out of the socket and can eventually separate from the tie rod assembly resulting in loss of steering control.

RESOLUTION

Kenworth Truck Company is initiating a recall to inspect and replace the TRW Type 20-EDL model (tie rod) ball socket assembly. REF: Customer Service Bulletin C-A-009. It is illegal to sell a stock or used truck which is known to be subject to a Federal Recall without being properly fixed first. See the attached procedure for inspection and replacement instructions. You can identify the front axle model either by using the sales code or ECAT. Replacement kits are to be ordered through PACCAR Parts. All take-off parts are to be destroyed. The kits include left-hand and right-hand tie rod ends (one each) with cotter pins and castle nuts. Kit order numbers are as follows:

L20KP0006 (Meritor)
L20KP0011 (Dana Spicer E1320I Series)
L20KP0012 (Dana Spicer E1200I Series)

WARRANTY

Submit a DWC Quick Claim using only one of the following procedures:

(Continued on reverse)

TRANSMITTAL/HANDLING INSTRUCTIONS

RETAIN:

X Dealer Principal	X Service Manager	Supersedes#: Dated:
___Truck Manager	X Warranty Manager	Questions? Call: Recall Specialist
X Parts Manager	___Other	(425) 828-5418

WARRANTY (Continued)

Quick Claim No.

00K3A = 0.3 hour for inspection only.

L20KP0006 Meritor Kit

00K3B = 1.1 hrs for inspect & change one tie rod end & adjust toe-in.
00K3C = 1.6 hrs for inspect & change two tie rod ends & adjust toe-in.

L20KP0011 Dana Spicer E13201 Series Kit

00K3D = 1.1 hrs for inspect & change one tie rod end & adjust toe-in.
00K3E = 1.6 hrs for inspect & change two tie rod ends & adjust toe-in.

L20KP0012 Dana Spicer E12001 Series Kit

00K3F = 1.1 hrs for inspect & change one tie rod end & adjust toe-in.
00K3G = 1.6 hrs for inspect & change one tie rod end & adjust toe-in.

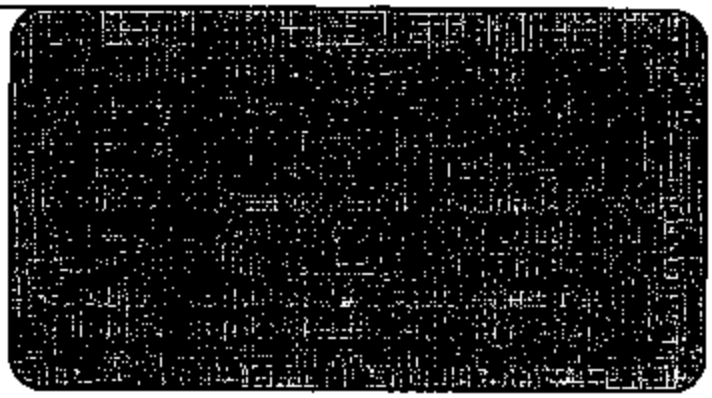
Service Managers please be sure to note the correct kit number so the Warranty Manager can enter the proper Quick Claim.

TRW Automotive
Steering & Suspension Systems

Service Bulletin #LNK-112

EDL Socket Replacement (Tie Rods)

Released September, 2000

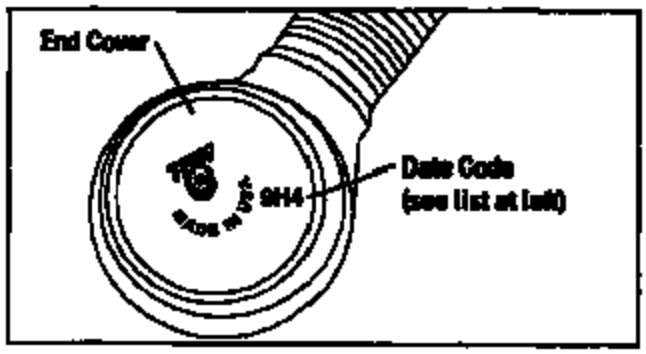


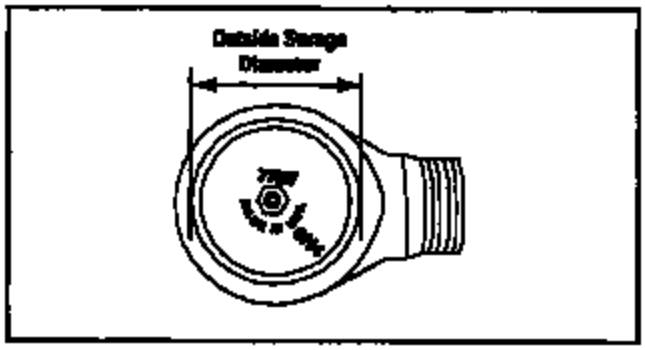
IF ..... The chassis number of the truck is on the list identified by the OE manufacturer. Any chassis number not on the list is not part of the campaign.

AND ..... The date code on either socket end is any of the following: 9G1, 9G2, 9G3, 9G4, 9H1, 9H2, 9H3, 9H4, 9H5, 9J1, 9J2, 9J3 OR 9J4. If the date code begins with any number other than "9", it is not part of the campaign. If the letter is "A-F" or "K-M", it is not part of the campaign.

AND ..... The sockets are "20 size" sockets. To identify the size: Measure the outside swage diameter. A 20 size socket will measure approx. 1 7/8". Any socket measuring 2 1/8" is a "24 size" socket, and is not part of the campaign.

THEN ..... Both socket ends need to be replaced using this kit.





NOTE: Only 20 size sockets are subject to this campaign. Make sure you are servicing the correct size socket.

NOTE: Any socket with "DL" stamped into the end cover is a different design, and IS NOT part of this campaign.

Please continue to page 2 if ALL of the above conditions are met.

NOTE: Any socket with "DL" stamped into the end cover is a different design, and IS NOT part of this campaign.

Remove the Tie Rod Assembly

⚠ WARNING **To prevent serious eye injury, always wear safe eye protection when you perform vehicle maintenance or service.**

1. Remove the cotter pins and the nuts on both sides of the axle that fasten each tie rod end to the tie rod arms.

2. Disconnect the cross tube assembly from the tie rod arms using a ball joint separator (pickle fork).

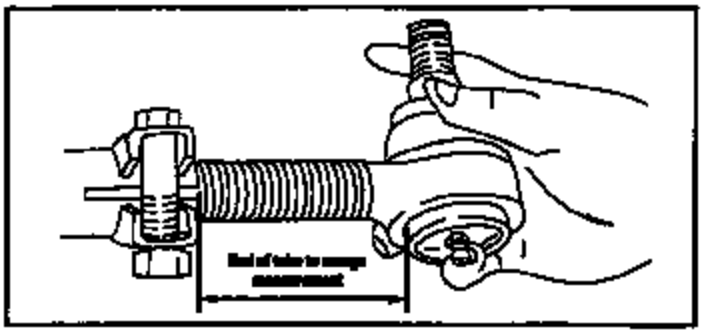
⚠ WARNING **Do not heat the arm to remove the tie rod assembly. Doing so will soften and damage the parts.**

⚠ WARNING **Always support the tie rod assembly so that it does not fall and become damaged or cause personal injury when separated from the steering knuckles.**

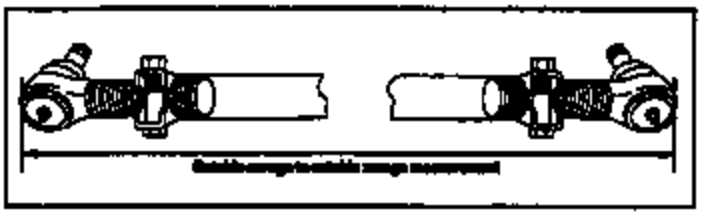
Remove and Replace the Tie Rod Ends

1. Note the position of the bolt and nut in the clamp, and the position of the clamp relative to the ground.

2. On one end, measure from the end of the tube to the nearest outside swage diameter as shown below. Record the measurement.



3. Measure the length of the tie rod from the outside of the swage diameter on one socket end to the outside of the swage diameter on the other socket end, as shown below. Record the measurement.



4. Loosen the clamp bolts on the cross tube.

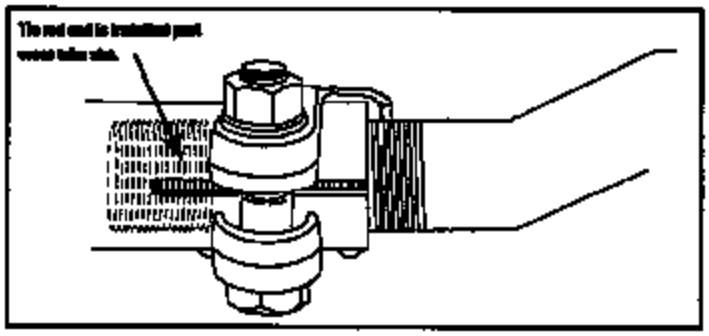
⚠ WARNING **If the clamp is tack-welded, do not remove the tack weld. If the tack weld is removed, clamping force will not be enough to keep the socket threads stationary. Loss of steering control will result. If welds are broken, the cross tube must be replaced.**

5. Remove one threaded tie rod end from the cross tube.

6. Install the new socket end. Thread the new socket end into the tube until the measurement from the end of the tube to the nearest outside swage diameter is the same as you measured in step 2.

7. Repeat steps 5 & 6 for the other socket end.

8. Make sure both ends are threaded into the tube deeper than the cross tube slot as shown below.



9. Measure the length of the tie rod again, and make sure it is the same as you measured in step 3. Sight down the tie rod and make sure socket ends are aligned.

10. If the clamp is not tack-welded, seat the tabs on the clamps against the end of the cross tube. Position the bolts as noted earlier. Tighten the clamps and torque to manufacturer's specifications.

Install the Tie Rod Assembly onto the Axle

1. Clean and dry the tie rod end taper and the tie rod arm taper hole. Connect the tie rod ends into the tie rod arms.

2. Install both tie rod end nuts to secure the tie rod end and cross tube assembly linkage to the tie rod arm. Torque the nuts to the vehicle manufacturer's specifications.

3. Install the cotter pins. If necessary, tighten the castle nut until the holes are aligned. Do not loosen the nut to install the cotter pin.

4. Sight down the tie rod again, to make sure the sockets are aligned with one-another. Also make sure the clamps are positioned relative to the ground as earlier noted.

Check Vehicle Toe-In

1. Check the toe-in measurements. Adjust as appropriate according to the manufacturer's guidelines.

PACCAR Inc
Law Department

November 7, 2000

00V-246-102

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street SW
Washington, D.C. 20590

Re: TRW Automotive Tie Rod and Draglink Ball Socket Recall
Peterbilt Recall No.: 800-G
Kenworth recall No.: 00KW03

Dear Sir or Madam:

Enclosed please find copies of the dealer notification letters that were sent to Peterbilt and Kenworth dealers, respectively. Our records indicate that these may have been overlooked in previous submissions to your office regarding this recall.

Very truly yours,

Kenneth R. Brownstein

Kenneth R. Brownstein
Senior Counsel

KRB/kah
TRWdlrltrsub.doc

Enclosure

7356

P.O. Box 1518 Bellevue, Washington 98009 Telephone 425-468-
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004 Facsimile 425-468-8228

NOV 06 2000

October 2, 2000

TO: DEALER PRINCIPALS
SERVICE MANAGERS
WARRANTY MANAGERS

SUBJECT: **SAFETY RECALL #800-G**
20-EDL MODEL BALL SOCKETS
EXPIRATION DATE: NONE

Peterbilt Motors Company has decided that a defect which relates to motor vehicle safety exists in certain Peterbilt vehicles which were manufactured between July 5, 1999 and November 30, 1999. A total of 1,723 trucks are affected and are identified by their VIN numbers on the attached list. Also attached is a copy of our letter to the owners of the affected trucks, which will be mailed to them in approximately one week.

The TRW type 20-EDL ball socket was used on most Meritor steer axles as tie-rod ends and in the draglink on some model 330's and all model 385's. Therefore, this recall will affect:

Meritor 10,000 lbs., 12,000 lbs. and 14,600 lbs. steer axle tie-rod ends;
Meritor 12,000 lbs. steer axle tie-rod ends used on pushers and tags;
All model 385 draglinks;
Model 330's with a 20,000 lbs. steer axle will have an affected draglink.

A limited number of ball-socket bearings have a below specification case depth and/or hardness which can, in some applications, lead to premature wear out of the socket. This premature wear can result in separation of the ball from the socket resulting in loss of steering control. The TRW type 20-EDL ball socket from the affected lot numbers identified in the TRW service bulletins (#LNK-112, #LNK-113) will be replaced with a TRW type 20-DL ball socket.

INSPECTION PROCEDURES:

The vehicle may have more than one affected component, therefore:

1. Determine if the vehicle is a model 385. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

2. Determine if the vehicle is a model 330 with a 20,000 lbs. steer axle. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

3. Determine if the vehicle has a pusher or tag axle (factory installed). If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

4. Determine if the vehicle has a Meritor 10,000 lbs., 12,000 lbs. or 14,600 lbs. steer axle. If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

The axles involved are Meritor FG941, FF943, FF961 and FF966.

PARTS:

Part Number	Description	Dlr Net/Each	Qty/Truck	Ext Dlr Net	Source Code
L20KT0003	Draglink	$59.70	1	$59.70	P
L20KP0006	Tie Rod End Service Kit	$30.00	1	$30.00	P

These parts will be available in the Paccar Parts Warehouses effective October 13, 2000.

LABOR:

Inspection only	999-003	0.3 hrs
Replace draglink	101-2	0.5 hrs
Replace tie rod ends on pusher, tag or steer axle		
includes adjust toe-in - one side	021-23	0.8 hrs
for both sides, add	021-23A	0.5

Please advise your customers that this repair must be performed ONLY at an authorized Peterbilt dealership. Under no circumstances are you to charge the customer for any portion of this repair.

It is a violation of Federal law for a dealer to sell or lease new vehicles or new items of replacement equipment covered by this recall until the defect or noncompliance is corrected.

If you have any questions regarding this Safety Recall, please contact Division Customer Service at 940/591-4171.

Sincerely,

PETERBILT MOTORS COMPANY

Craig W. Kendall

Craig W. Kendall
National Customer Service Manager

KENWORTH®

DEPT:	CUSTOMER SERVICE
CATEGORY:	Product Recall
TITLE:	Campaign 00KW3 TRW Tie Rod Ball Sockets
NUMBER:	C-E-094A PG: 1 OF 2
DATE:	10/17/00
VALID UNTIL:	Superseded

A Division of PACCAR
(Please replace the top page of your bulletin with this page.)
FEDERAL RECALL CAMPAIGN 00KW3
CHASSIS BUILT WITH ARVINMERITOR & EATON AXLES WITH TRW TIE ROD BALL SOCKETS
ALL MODELS BUILT BETWEEN JULY 7, 1999 AND DECEMBER 3, 1999

Kenworth Truck Company has determined that a defect may exist in truck models built between July 7, 1999 and December 3, 1999, with ArvinMeritor and Eaton front axles built with TRW Type 20-EDL model (tie rod) ball socket assemblies. A total of 4,826 U.S. and 341 Canadian vehicles are involved in the campaign. The chassis list and a copy of the customer letter are attached. The DWC and SIR online systems indicate chassis involved in this recall with the designator "00KW3" in the "Campaign" field.

SITUATION

Kenworth Truck Company was notified by TRW that chassis built with ArvinMeritor and Eaton front axles with TRW Type 20-EDL model (tie rod) ball socket assemblies contain a heat-treated steel bearing with below specification case hardness and/or depth. In some applications, this condition could lead to premature wear-out of the socket and can eventually separate from the tie rod assembly resulting in loss of steering control.

RESOLUTION

Kenworth Truck Company is initiating a recall to inspect and replace the TRW Type 20-EDL model (tie rod) ball socket assembly. REF: Customer Service Bulletin C-A-009. It is illegal to sell a stock or used truck which is known to be subject to a Federal Recall without being properly fixed first. See the attached procedure for inspection and replacement instructions. You can identify the front axle model either by using the sales code or ECAT. If one end is found that needs to be replaced, replace both tie rod ends. Replacement kits are to be ordered through PACCAR Parts. Please check your inventory for possible equivalent replacement tie rod ends. Verify part numbers through ECAT. Parts taken from your stock must be checked per bulletin instructions before using as replacements. All take-off parts are to be destroyed. The kits include left-hand and right-hand tie rod ends (one each) with cotter pins and castle nuts. Kit order numbers are as follows:

L20KP0006 (Meritor)
L20KP0011 (Dana Spicer E1320I Series)
L20KP0012 (Dana Spicer E1200I Series)

(Continued on reverse)

TRANSMITTAL/HANDLING INSTRUCTIONS

RETAIN:
_X_ Dealer Principal
___ Truck Manager
_X_ Parts Manager
_X_ Service Manager
_X_ Warranty Manager
____ Other

Supersedes#: C-E-094 Dated: 10/06/00
Questions? Call: Recall Specialist
(425) 828-5418

WARRANTY

Submit a DWC Quick Claim using only one of the following procedures:

Quick Claim No.

00K3A = 0.3 hour for inspection only.

L20KP0006 Meritor Kit

00K3C = 1.6 hrs for inspect & change two tie rod ends & adjust toe-in.

L20KP0011 Dana Spicer E1320I Series Kit

00K3E = 1.6 hrs for inspect & change two tie rod ends & adjust toe-in.

L20KP0012 Dana Spicer E1200I Series Kit

00K3G = 1.6 hrs for inspect & change two tie rod ends & adjust toe-in.

Service Managers please be sure to note the correct kit number so the Warranty Manager can enter the proper Quick Claim.

October 10, 2000

Dear Sir/Madam,

This notice is sent to you in accordance with the requirements of the National Traffic and Motor Vehicle Safety Act.

Kenworth Truck Company has decided that a defect which relates to motor vehicle safety exists in Kenworth trucks built between July 7, 1999 and December 3, 1999, with a TRW Type 20-EDL model tie rod ball socket in the front axle. Your truck was built with this configuration.

Kenworth Truck Company was notified by TRW that chassis built with ArvinMeritor and Eaton front axles with TRW Type 20-EDL model (tie rod) ball socket assemblies contain a heat-treated steel bearing with below specification case hardness and/or depth. This may cause premature wear-out of the socket and could eventually separate from the tie rod assembly, which could result in loss of vehicle control and/or vehicle crash without prior warning.

Kenworth has initiated a recall campaign to correct this condition. As of the date of this letter, Kenworth urges you to immediately contact your nearest authorized Kenworth dealer to have the tie rod ball socket assembly inspected and, if necessary, replaced. This work may take approximately 1½ hours, depending on the modification, and will be performed at no charge to you.

If you require further information about this recall or experience any difficulty in making arrangements for the inspection or correction, please contact: Kenworth Truck Company, P.O. Box 1000, Kirkland, WA 98083-1000: Attn: Customer Service Department.

If you conclude that Kenworth Truck Company has not enabled you to remedy this defect in reasonable time and without charge, you may submit a complaint to: Administrator for Enforcement, National Highway Traffic Safety Administration, 400 Seventh Street, S.W., Washington, DC 20590, or call the toll free auto safety hotline at 1-800-424-9393. Washington DC areas residents may call 202-366-0123.

If you no longer own this truck, we would appreciate your advising us of the new owner if the name is known to you. The enclosed card may be used for this purpose.

We regret any inconvenience that this may cause. We are convinced that this work is essential to the safe operation of your truck.

Sincerely,

Morten Hopland
National Warranty Manager

October 10, 2000

Dear Sir/Madam,

This notice is sent to you in accordance with the requirements of the Canada Motor Vehicle Safety Act.

Kenworth Truck Company has decided that a defect which relates to motor vehicle safety exists in Kenworth trucks built between July 7, 1999 and December 3, 1999, with a TRW Type 20-HDL model tie rod ball socket in the front axle. Your truck was built with this configuration.

Kenworth Truck Company was notified by TRW that chassis built with ArvinMeritor and Eaton front axles with TRW Type 20-HDL model (tie rod) ball socket assemblies contain a heat-treated steel bearing with below specification case hardness and/or depth. This may cause premature wear-out of the socket and could eventually separate from the tie rod assembly, which could result in loss of vehicle control and/or vehicle crash without prior warning.

Kenworth has initiated a recall campaign to correct this condition. As of the date of this letter, Kenworth urges you to immediately contact your nearest authorized Kenworth dealer to have the tie rod ball socket assembly inspected and, if necessary, replaced. This work may take approximately 1 ½ hours, depending on the modification, and will be performed at no charge to you.

If you require further information about this recall or experience any difficulty in making arrangements for the inspection or correction, please contact: Kenworth Truck Company, P.O. Box 1000, Kirkland, WA 98083-1000; Attn: Customer Service Department.

If you conclude that Kenworth Truck Company has not enabled you to remedy this defect in reasonable time and without charge, you may submit a complaint to: Director, Vehicle Safety and Energy Operations, Road Safety and Motor Vehicle Regulation, Transport Canada, Ottawa, Ontario K1A 0N5.

If you no longer own this truck, we would appreciate your advising us of the new owner if the name is known to you. The enclosed card may be used for this purpose.

We regret any inconvenience that this may cause. We are convinced that this work is essential to the safe operation of your truck.

Sincerely,

Morten Hopland
National Warranty Manager

PACCAR Inc
Law Department

January 19, 2001

00V-246-102

Associate Administrator for Enforcement
National Highway Traffic Safety Administration
400 Seventh Street SW
Washington, D.C. 20590

Re: TRW Automotive Tie Rod and Draglink Ball Socket Recall
Peterbilt Recall No.: 800-G

Dear Sir or Madam:

Enclosed is a copy of a supplemental letter mailed to Peterbilt dealers clarifying which axles are involved in this recall. Three axle model numbers that were identified by Peterbilt as being a part of this recall were inadvertently left out of the original dealer notification letter. Recall letters were mailed on October 10, 2000 to owners of vehicles containing these axles. The omission of these axle models in the dealer letter led to some confusion when a single customer requested the recall work.

The dealer involved has telephoned the customer that was denied the recall work and has asked the customer to return the vehicle.

Very truly yours,

Kenneth R. Brownstein

Kenneth R. Brownstein by KAH
Senior Counsel

KRB/kah
TRWdlrltrrev.doc
Enclosure

P.O. Box 1518 Bellevue, Washington 98009 Telephone 425-468-7356
PACCAR Building 777-106th Avenue N.E. Bellevue, Washington 98004 Facsimile 425-468-8228

December 19, 2000

TO: DEALER PRINCIPALS
SERVICE MANAGERS
WARRANTY MANAGERS

SUBJECT: **SAFETY RECALL #980-G**
20-EDL MODEL BALL SOCKETS
EXPIRATION DATE: NONE

On October 2, 2000 you were mailed a copy of the attached letter. Although the letter indicated that all Meritor 10,000 lbs., 12,000 lbs. and 14,600 lbs. steer axles are affected by this campaign, not all the part numbers were identified.

This letter is to clarify that the axles involved are Meritor, FG941, FF943, FF961, FF966, FD965, FF942 and FF981.

We are sorry for any inconvenience that this may have caused. If you have any questions, please contact Division Quality Service at 940/591-4171.

Sincerely,

PETERBILT MOTORS COMPANY

Mike Conroy
Quality Services Manager

October 2, 2000

OCT 5 2000

TO: DEALER PRINCIPALS
SERVICE MANAGERS
WARRANTY MANAGERS

SUBJECT: **SAFETY RECALL #800-G**
20-EDL MODEL BALL SOCKETS
EXPIRATION DATE: NONE

Peterbilt Motors Company has decided that a defect which relates to motor vehicle safety exists in certain Peterbilt vehicles which were manufactured between July 5, 1999 and November 30, 1999. A total of 1,723 trucks are affected and are identified by their VIN numbers on the attached list. Also attached is a copy of our letter to the owners of the affected trucks, which will be mailed to them in approximately one week.

The TRW type 20-EDL ball socket was used on most Meritor steer axles as tie-rod ends and in the draglink on some model 330's and all model 385's. Therefore, this recall will affect:

Meritor 10,000 lbs., 12,000 lbs. and 14,600 lbs. steer axle tie-rod ends;
Meritor 12,000 lbs. steer axle tie-rod ends used on pushers and tags;
All model 385 draglinks;
Model 330's with a 20,000 lbs. steer axle will have an affected draglink.

A limited number of ball-socket bearings have a below specification case depth and/or hardness which can, in some applications, lead to premature wear out of the socket. This premature wear can result in separation of the ball from the socket resulting in loss of steering control. The TRW type 20-EDL ball socket from the affected lot numbers identified in the TRW service bulletins (#LNK-112, #LNK-113) will be replaced with a TRW type 20-DL ball socket.

INSPECTION PROCEDURES:

The vehicle may have more than one affected component, therefore:

1. Determine if the vehicle is a model 385. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

2. Determine if the vehicle is a model 330 with a 20,000 lbs. steer axle. If so, inspect the draglink per the enclosed TRW service bulletin (#LNK-113) for the suspect date codes, and if the applicable date codes are found on the draglink, replace the draglink.

3. Determine if the vehicle has a pusher or tag axle (factory installed). If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

4. Determine if the vehicle has a Meritor 10,000 lbs., 12,000 lbs. or 14,600 lbs. steer axle. If so, inspect the tie-rod ends per the enclosed TRW service bulletin (#LNK-112) and, if necessary, replace.

The axles involved are Meritor FG941, FF943, FF961 and FF966.

PARTS:

Part Number	Description	Dlr Net/Each	Qty/Truck	Ext Dlr Net	Source Code
L20KT0003	Draglink	$59.70	1	$59.70	P
L20KP0006	Tie Rod End Service Kit	$30.00	1	$30.00	P

These parts will be available in the Paccar Parts Warehouses effective October 13, 2000.

LABOR:

Inspection only	999-003	0.3 hrs
Replace draglink	101-2	0.5 hrs
Replace tie rod ends on pusher, tag or steer axle		
includes adjust toe-in - one side	021-23	0.8 hrs
for both sides, add	021-23A	0.5

Please advise your customers that this repair must be performed ONLY at an authorized Peterbilt dealership. Under no circumstances are you to charge the customer for any portion of this repair.

It is a violation of Federal law for a dealer to sell or lease new vehicles or new items of replacement equipment covered by this recall until the defect or noncompliance is corrected.

If you have any questions regarding this Safety Recall, please contact Division Customer Service at 940/591-4171.

Sincerely,

PETERBILT MOTORS COMPANY

Craig W. Kendall

Craig W. Kendall
National Customer Service Manager